

Appl. No. 09/832,003

REMARKS

Claims 24-60 were previously cancelled from the application; claims 5, 6, 17 and 18 are cancelled herein; claims 1, 4, 7-12, 16 and 19-22 are amended; and claims 1-4, 7-16 and 19-23 are pending in the application.

The Examiner objects to the title of the application, and requests replacement of the title with a more descriptive title. Without admission as to the propriety of the Examiner's objection, Applicant has incorporated the Examiner's suggested changes into the title of the application, and accordingly requests that the Examiner's objection to the title be withdrawn in the Examiner's next Action.

The claims stand rejected as being unpatentable over Ren, Summerfelt, and Jung, in various combinations. Applicant has amended independent claims 1 and 16, from which the remaining claims depend, and believes that such amendments place all of the claims in condition for allowance.

Referring initially to claim 1, the amended claim recites a method of forming a capacitor construction wherein a perovskite-type dielectric material is formed over a first capacitor electrode. The perovskite-type dielectric material is recited to have a first edge region proximate the electrode, and a portion further from the electrode than the first edge region. The perovskite-type material is further recited to have a common chemical composition within the first edge region and the recited portion, and additionally recites that the recited portion has a different amount of crystallinity than the first edge region. Finally, the claim recites that a second capacitor electrode is formed over the perovskite-type dielectric material while the first edge region and recited portion differ in crystallinity relative to one another.

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Amended claim 1 is allowable over the cited references for at least the reason that the references do not suggest or disclose all of the recited features of claim 1. For instance, not one of the cited references suggests or discloses a perovskite-type dielectric material having a common chemical composition while differing in crystallinity in an edge region relative to a portion further from a first electrode than the edge region, together with the claim 1 recited formation of a second capacitor electrode over the perovskite-type dielectric material while the edge region and recited portion differ in the amount of crystallinity relative to one another. Applicant notes that the recited feature of forming a second capacitor electrode over a perovskite-type dielectric material having a common chemical composition within a first edge region and recited portion while an amount of crystallinity differs between the first edge region and the recited portion is not only absent from any single cited reference, but also is not suggested by any combination of the cited references. For at least this reason, claim 1 is allowable over the cited references, and Applicant therefore requests formal allowance of claim 1 in the Examiner's next Action.

Applicant notes that the amendment to claim 1 is supported by, for example, originally-filed claim 6, and therefore does not comprise "new matter".

Claims 2-4 and 7-15 depend from claim 1, and are therefore allowable for at least the reasons discussed above regarding claim 1.

Referring next to claim 16, the amended claim recites a method of forming a capacitor construction wherein a perovskite-type dielectric material is formed over a first capacitor electrode, and wherein a second capacitor electrode is formed over the perovskite-type dielectric material. The claim specifically recites that the perovskite-type dielectric material comprises a substantially crystalline region between first and second

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substantially amorphous regions, and comprises a common chemical composition throughout the substantially crystalline region and throughout the first and second substantially amorphous regions.

Claim 16 is allowable over the cited references for at least the reason that the references do not suggest or disclose the claim 16 recited formation of a second capacitor electrode over a perovskite-type dielectric material comprising the recited substantially crystalline region between a pair of substantially amorphous regions, with the substantially crystalline region being further recited to comprise a common chemical composition with the substantially amorphous regions.

The amendment to claim 16 is supported by, for example, originally-filed claim 18, and therefore does not comprise "new matter".

Claims 19-23 depend from claim 16, and are therefore allowable for at least the reasons discussed above regarding claim 16.

Pending claims 1-4, 7-16, and 19-23 are allowable for the reasons discussed above, and Applicant therefore requests formal allowance of such claims.

Respectfully submitted,

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By: 

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